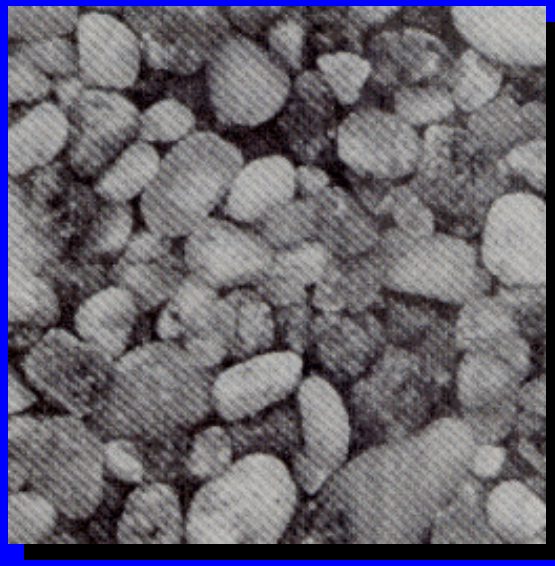
Question

On the next page you can see nine images. Images labeled a, b, c depict peebles, bark and straw, respectively. Then you see pictures of the second order statistics captured by GLCM for a horizontal distance of one pixel. The brightness corresponds to the value of the GLCM elements. The next images illustrate the amplitude of the Fourier spectrum.

Question

a)

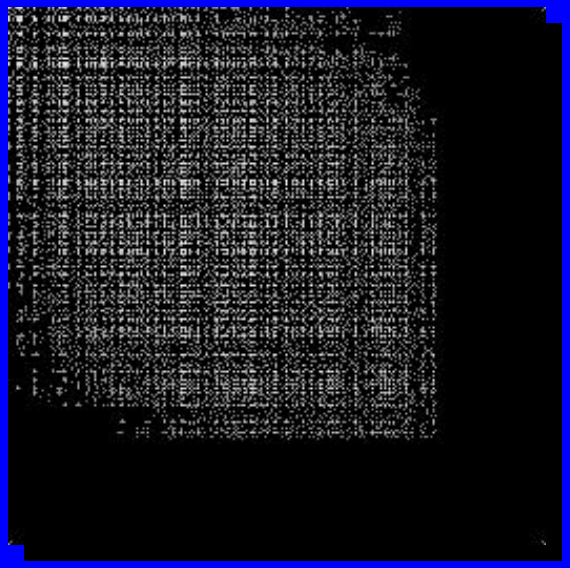


b)

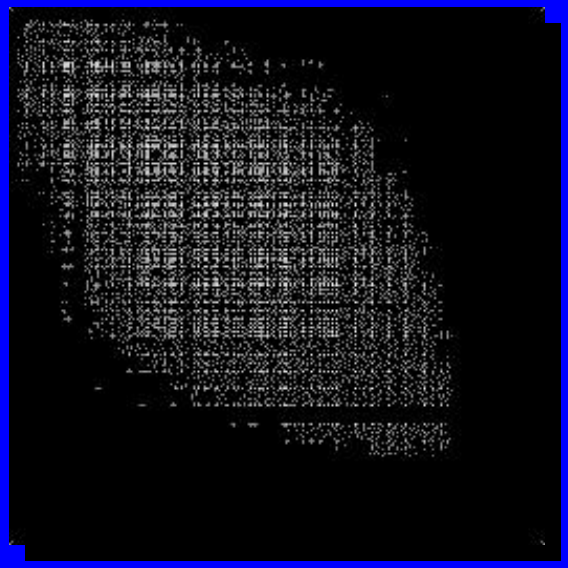
c)

Question

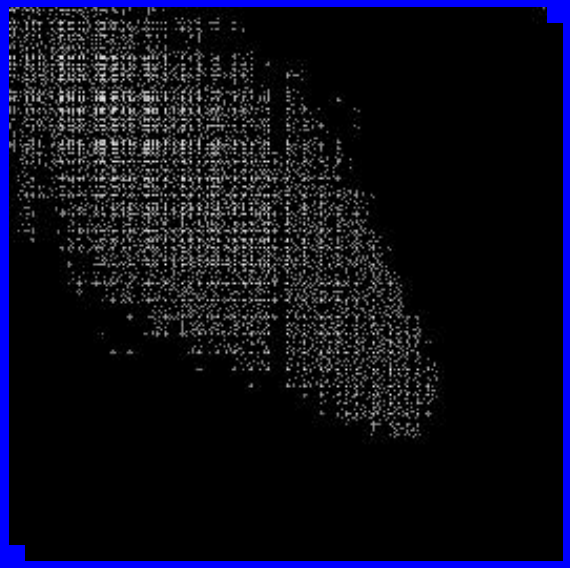
d)



e)



f)

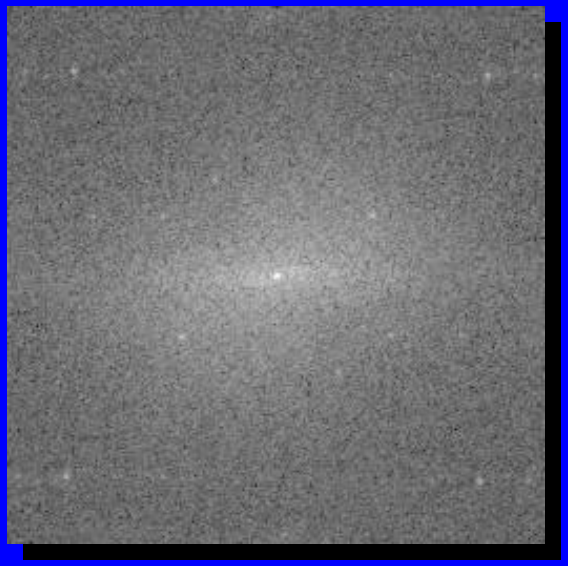


Question

g)

e)

f)



Question

a) Find for each labeled image its corresponding GLCM and Fourier spectrum images. You get 1 point for each correct match, and 1 extra point per image if you provide an appropriate motivation. But you lose the points for that set of image if you provide a wrong motivation!

Question

b) Use the two images below to show that the autocorrelation function is not necessarily a unique representation of an image:

Image 1	Image 2
3 10 3	1 6 9

Question

c) For the image below, compute the value of the GLCM texture feature useful for discriminating between low and high frequencies in the horizontal direction:

0	0	0	1
2	3	2	2
1	1	1	1
3	3	3	2